Trend Analysis as an Evaluation Strategy

Chapter 9

Objectives

- Distinguish between monitoring and trend analysis
- Explain why trend analysis is so difficult to conduct, yet, why it is so important to health service programs.

Validity refers to the approximate truth of propositions, inferences, or conclusions.

Reliability refers to the extent to which a measuring device produces similar results on multiple applications to the same phenomenon.

- Reproducibility for the same device
- Transferability to another device

Sensitivity refers to the ability of detect changes in a phenomenon under evaluation.

Content validity: The degree to which an assessment contains a representative and appropriate sample of the content (subject matter).

- Incidence and prevalence
- Unidimensional or multidimensional

Criterion (predictive) validity: The degree to which the value predicts the performance in some other area. Example: If correlated, a test of scholastic achievement can be used to predict job success.

Construct validity: The degree to which a test measures the construct, or psychological concept or variable, at which it is aimed (e.g., intelligence, anxiety). Inferred from all of the logical arguments and empirical evidence

What is Trend Analysis?

- Observe changes in
  - Performance
  - Intervention
  - Variation
- Explanations for observed changes

Usefulness

- In conjunction with monitoring
- Concerned with program impact
- To clarify observations (before and after studies)

Trend Analysis Data

- **Collected and maintained over a long period of time**
- **Periodic**

Application to Decision Making

- **Same as monitoring**

Trend Analysis Techniques and Interpretation

Chapter 10

Simple Graphic Approach

Multivariate Applications

- **Non-linear trend lines**

Time Series